

ARIZONA CTE CAREER PREPARATION STANDARDS & MEASUREMENT CRITERIA

AIRCRAFT MECHANICS, 47.0600.5	
STANDARD 1.0—DEMONSTRATE KNOWLEDGE OF BASIC ELECTRICITY	
1.1	Sources and/or effects of capacitance in a circuit
1.2	Uses of capacitance in a circuit
1.3	Sources and/or effects of inductance in a circuit
1.4	Uses of inductance in a circuit
1.5	Operation of basic AC and/or DC electrical circuits
1.6	Ohm's law
1.7	Kirchoff's law(s)
1.8	Procedures used in the measurement of voltage, current, and/or resistance
1.9	Determining power used in simple circuits
1.10	Common types of defects that may occur in an installed battery system
1.11	Aircraft battery theory/operation
1.12	Aircraft battery theory/operation
1.13	Servicing aircraft batteries
STANDARD 2.0—DEMONSTRATE KNOWLEDGE OF AIRCRAFT DRAWINGS	
2.1	Characteristics and/or uses of any of the various types of drawings/blueprints and/or system schematics
2.2	The meaning of any of the lines and symbols commonly used in aircraft sketches/drawings/blueprints
2.3	Using charts or graphs
2.4	Troubleshooting an aircraft system or component(s) using drawings/blueprints and/or system schematics
2.5	Inspection of an aircraft system or component(s) using drawings/blueprints and/or system schematics
2.6	Repair or alteration of an aircraft system or component(s) using drawings/ blueprints and/or schematics
2.7	Use of drawings/blueprints in component fabrication
2.8	Terms used in conjunction with aircraft drawings/blueprints and/or system schematics

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STANDARD 3.0—DEMONSTRATE KNOWLEDGE OF WEIGHT AND BALANCE	
3.1	Characteristics and/or uses of any of the various types of drawings/blueprints and/or system schematics
3.2	The meaning of any of the lines and symbols commonly used in aircraft sketches/drawings/ blueprints
3.3	Using charts or graphs
3.4	Troubleshooting an aircraft system or component(s) using drawings/blueprints and/or system schematics
3.5	Inspection of an aircraft system or component(s) using drawings/blueprints and/or system schematics
3.6	Repair or alteration of an aircraft system or component(s) using drawings/ blueprints and/or schematics
3.7	Use of drawings/blueprints in component fabrication
3.8	Terms used in conjunction with aircraft drawings/blueprints and/or system schematics
STANDARD 4.0—DEMONSTRATE KNOWLEDGE OF FLUID LINES AND FITTINGS	
4.1	Tubing materials
4.2	Tubing materials application
4.3	Tubing sizes
4.4	Flexible hose material
4.5	Flexible hose materials application
4.6	Flexible hose sizes
4.7	Flexible hose identification
4.8	AN, MS, and/or AC plumbing fittings
4.9	Rigid line fabrication techniques/practices
4.10	Rigid line installation techniques/practices
4.11	Flexible hose fabrication techniques/practices
4.12	Flexible hose installation techniques/practices
STANDARD 5.0—DEMONSTRATE KNOWLEDGE OF MATERIALS AND PROCESSES	
5.1	Any of the metals commonly used in aircraft and their general application
5.2	Composites and other nonmetallic components and their general application

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5.3	Heat-treated parts precautions, using DD or "icebox" rivets
5.4	Typical wood materials and fabric coverings
5.5	Visible characteristics of acceptable and/or unacceptable welds
5.6	Precision measurement and precision measurement tools
5.7	Using inspection techniques/methods, including any of the following: visual, metallic ring test, dye/fluorescent penetrant, magnetic particle, and/or eddy current
5.8	Identification, selection, installation, and/or use of aircraft hardware
5.9	Safetying of components and/or hardware
5.10	Finding information about material types for specific application(s)
STANDARD 6.0—DEMONSTRATE KNOWLEDGE OF GROUND OPERATION AND SERVICING	
6.1	General procedures for towing aircraft
6.2	Air Traffic Control (ATC) considerations/requirements for towing aircraft on or across active runways
6.3	General procedures for starting, ground operating, and/or taxiing a reciprocating engine powered aircraft
6.4	General procedures for starting, ground operating, and/or taxiing a turbine engine powered aircraft
6.5	The hazards associated with starting, ground operating, and/or taxiing aircraft and procedures for preventing, minimizing or otherwise managing any of them
6.6	Procedures for refueling and/or defueling aircraft
6.7	Oxygen system safety practices/precautions
6.8	Characteristics of aviation gasoline and/or turbine fuels, including basic types and means of identification
6.9	Fuel contamination hazards
6.10	Fuel additives commonly used in the field
6.11	Use of automobile fuel in aircraft engines
6.12	Types/classes of fires, using proper fire extinguishers/methods
STANDARD 7.0—DEMONSTRATE KNOWLEDGE OF CLEANING AND CORROSION CONTROL	
7.1	Aircraft preparation for washing, general aircraft cleaning (washing) procedures
7.2	Postcleaning (washing) procedures
7.3	Corrosion theory

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7.4	Types/effects of corrosion
7.5	Conditions that cause corrosion
7.6	Corrosion prone areas in aircraft
7.7	Corrosion preventive maintenance procedures
7.8	Inspection for and identification of corrosion in any of its various forms
7.9	Corrosion removal and treatment procedures
7.10	Use of Material Safety Data Sheets (MSDS)